

EVANS et al.
Application No. 09/763,325
January 25, 2006

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) A method of operating a transmitter to transmit a data block to a plurality of recipients selected from a plurality of receivers connected to said transmitter via a multicast-capable network, wherein said transmitter has access to one or more directories storing a plurality of lists of receiver identifiers and a multicast-address suitable for use in said multicast-capable network corresponding to each of said lists; said method comprising the steps of:
 - a) obtaining a list of receiver identifiers, said list corresponding to the set of recipients to which said data block is to be sent;
 - b) after receiving said data block, said data block being without a corresponding multicast address, examining said one or more directories to find and obtain a multicast-address corresponding in common to said list of receiver identifiers obtained in step a);
 - c) addressing said data block to said multicast address found and obtained in step b); and
 - d) transmitting said data block over said multicast-capable network, the data block being addressed with said multicast address in step c).
2. (original) A method according to claim 1 wherein:

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said obtaining step comprises:

a) receiving one or more indications that an earlier data block addressed to a selected set of receivers was not successfully received by one or more of said set of receivers; and

b) analysing said indications to generate a list of receiver identifiers, each receiver identifier in said list identifying a recipient that did not successfully receive said earlier data block.

3. (original) A method according to claim 1 wherein:

said obtaining step involves:

a) determining that a general data block is to be sent to recipients included in one or more of a selected plurality of said lists; and

b) unifying said selected plurality of lists to find a unified list of receiver identifiers.

4. (original) A method according to claim 1 wherein said transmitter further has access to type data listing data block type identifiers, and a list of recipient identifiers for each data block type identifier, wherein said obtaining step involves:

a) finding a type identifier associated with said data block; and

b) examining said type data to find a list of receiver identifiers associated

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with said type identifier.

5. (original) A method according to claim 4 wherein said type identifier is a subject-matter identifier indicating the subject-matter to which the data in the data block relates.

6. (previously presented) A method according to claim 4 wherein said type identifier finding step involves extracting a type identifier from a data block received at said transmitter.

7. (original) A method according to claim 1 wherein said transmitter has access to a plurality of group directories for respective groups of receivers.

8. (previously presented) A method according to claim 1 wherein the format of said multicast address is in accordance with the Internet Protocol suite.

9. (previously presented) A transmitter operable to transmit data blocks to a set of recipient computers selected from a plurality of receiver computers connectable to said transmitter computer via a multicast-capable network, said transmitter comprising:

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an output connectable to said multicast-capable network;

one or more processors;

a program store storing instructions executable by said one or more processors to transmit the data block via said output over said multicast-capable network; and

one or more directories for storing a plurality of lists of receiver identifiers and a multicast-address suitable for use in said multicast-capable network corresponding to each of said lists;

said instructions being executable by said one or more processors to transmit the data block by:

a) obtaining a list of receiver identifiers, said list corresponding to the set of recipients to which said data block is to be sent;

b) after receiving said data block, said data block being without a corresponding multicast address, examining said one or more directories to find and obtain a multicast address corresponding in common to said list of receiver identifiers obtained in step a);

c) addressing said data block to said multicast address found and obtained in step b); and

d) transmitting said data block over said network, the data block being addressed with said multicast address in step c).

10. (original) A transmitter according to claim 9 wherein:

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said transmitter further has access to type data listing data block type identifiers, and a list of recipient identifiers for each data block type identifier; and

said set of instructions being further executable to obtain said list of receiver identifiers by:

- a) finding a type identifier associated with said data block; and
- b) examining said type data to find a list of receiver identifiers

associated with said type identifier.

11. (previously presented) A program storage device readable by a processing apparatus, said device embodying a program of instructions executable by the processing apparatus to perform method steps for transmitting a data block over a network to a set of recipients selected from a plurality of receivers, said method steps comprising steps according to claim 1.

12. (canceled)

13. (currently amended) A computer program product containing computer readable medium encoded with program instructions for operating a transmitter to transmit a data block to a plurality of recipients selected from a plurality of receivers connected to said transmitter via a multicast-capable network, wherein said transmitter has access to one or more directories storing a plurality of lists of receiver identifiers and

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a multicast-address suitable for use in said multicast-capable network corresponding to each of said lists, the computer program product comprising:

a) computer readable program code means for causing a computer to obtain a list of receiver identifiers, said list corresponding to the set of recipients to which said data block is to be sent;

b) computer readable program code means for causing the computer to, after receiving said data block, said data block being without a corresponding multicast address, examine said one or more directories to find and obtain a multicast-address corresponding in common to said obtained list of receiver identifiers;

c) computer readable program code means for causing the computer to address said data block to said found and obtained multicast address; and

d) computer readable program code means for causing the computer to transmit said data block over said multicast-capable network, the data block being addressed with said multicast address ~~addressed with said multicast address~~.